

Faculty Perspectives on Academic Work and Administrative Burden: Implications for the Design of Effective Support Services

Leslie Wimsatt, PhD

Educational Planning and Development
Department of Family Medicine
University of Michigan
1018 Fuller
Ann Arbor, MI 48104-1213 USA
Email: lwimsatt@med.umich.edu

Andrea Trice, PhD

CEO, Trice and Associates USA

David Langley, PhD

Research and Enterprise Development
University of Bristol, UK

Authors' Note

This paper includes highlights from a faculty workload study conducted by the Faculty Standing Committee of the Federal Demonstration Partnership (FDP), Washington, D.C. The authors acknowledge the contributions made by the committee members to that study, including Robert Decker, PhD (Principal Investigator), Joseph Konstan, PhD (Chair, Faculty Standing Committee), and Nancy Wray, PhD (Administrative Representative, Faculty Standing Committee).

Abstract

This paper uses literature on faculty worklife and findings from a recent study conducted by the Federal Demonstration Partnership (FDP) to shed light on the sources and extent of administrative burden experienced by faculty engaged in federal grant research. Discussion focuses on the implications for research administrators, including strategies for designing faculty support services that take into account a variety of factors that motivate academic engagement.

Keywords: Research productivity, sponsored research, research administration, academic workload

Introduction

Around the world, higher education institutions face significant fiscal pressure and escalating costs. At many institutions, researchers are under increased pressure to obtain funded-project revenue as a way of counteracting a decline in government allocations for higher education (Gumpert, 1997; Santos, 2007), with such involvement often seen as a key metric of individual

faculty activity and performance. Moreover, heightened demands for accountability, increased competition for research grants, expanded demands on faculty time, and growing complexity and costs related to administering the research enterprise are among the challenges that make achieving institutions' research missions increasingly difficult. It is now commonplace for researchers to collaborate with institutions from multiple countries and even continents. As a result of the increased complexity and scope of research programs, offices of sponsored research have had to adapt to help researchers and their institutions win and manage funding, add value to the research mission and work toward continuous development of the institutional portfolio. There can be little doubt that research and its administration is an increasingly complex endeavor, one which poses opportunities and challenges to those involved in its leadership, administration and delivery.

The environment in which universities function today demands that the institutions' research enterprise be both efficient and effective. This article seeks to support this goal by describing the results of a study exploring faculty responsibilities and burdens related to ensuring research compliance. Several research questions guide this inquiry, including: How efficient are faculty members able to be when conducting research? What assistance do they receive from administrative and support personnel in ensuring research compliance? Is this assistance effective? To what extent are relationships between administrators and researchers helping or hindering the research enterprise? What recommendations do faculty members offer for increasing their research productivity?

As a foundation for understanding the results of this study and related implications, it is worthwhile to first consider challenges faculty members face. These challenges include a lengthening work week, expanding demands on their time, and increasing stress levels (Gappa, Austin, & Trice, 2007). A review of literature related to these topics may be helpful in understanding how faculty researchers frame the concept of administrative burden. This review will also explore how the role of the research administrator has changed in recent years, and how these changes may have altered the nature of the relationship between faculty and administrators as they work together to fulfill their institutions' research missions.

Faculty Work Life

One challenge faced by faculty is a lengthening work week. Faculty at nearly every type of institution are spending more time engaged in research, teaching and preparing for teaching than they have in the past (Bentley & Blackburn, 1990; Dey, Milem, & Berger, 1997; Milem, Berger, & Dey, 2000). Although the U.S. Office of Management and Budget (OMB) continues to limit the budgeting of faculty grant effort to a 40-hour work week, research shows that faculty typically average 45 to 56 hours (Cataldi, Bradburn, & Fahimi, 2005; Conley, 2002). The percentage of faculty members who report working more than 55 hours a week grew from 13% in 1972 to 47% in 2003 (Bayer, 1973; U.S. Department of Education, 2004). Despite this level of investment, many faculty feel dissatisfied with the time they have available to stay current in their fields (U.S. Department of Education, 2004).

The expansion of faculty roles in recent years has gone a long way toward lengthening the work week. Faculty today are called upon to incorporate new technologies into their teaching, to be

available to students and colleagues through email and other technologies at any time, to engage with their surrounding communities in more meaningful ways, to conduct more assessment in the classroom, to become more entrepreneurial in securing funding for their work, and to effectively teach an increasingly diverse body of students (Gappa et al., 2007). These expanding demands are occurring at the same time that faculty are being hired into a wider variety of appointment types. At most institutions this means that a shrinking proportion of tenure-track faculty is responsible for covering the majority of governance and service duties.

Given lengthening work weeks and expanding demands on time, it is not surprising that faculty stress levels are high. According to Lindholm, Szelenyi, Hurtado, & Korn (2005), 66% of faculty members report institutional procedures and red tape as a source of stress. Longer work weeks are also reflected in the fact that a majority of faculty report managing household responsibilities (74%), lack of personal time (74%), and their physical health (51%) as additional sources of stress.

Minority and female faculty members report particularly high stress levels in some areas. Ethnic and racial minorities are likely to experience higher levels of stress related to subtle discrimination and research or publishing demands compared to Caucasians (Hendel & Horn, 2005). They are also significantly more likely to intend to leave their careers or institutions than Caucasians (Rosser, 2004). Women, compared to men, report experiencing significantly higher levels of stress related to teaching loads, time pressure, lack of personal time, subtle discrimination, and research or publishing demands. Women also tend to report lower levels of satisfaction than men with their opportunities for scholarly pursuits. (Hagedorn, 2000; Hendel & Horn, 2005; Hult, Callister, & Sullivan, 2005)

Many of these areas of dissatisfaction and stress take on particular significance in light of research related to job satisfaction. First, research administrators instinctively know that equitable access to campus resources and work-related satisfaction go hand in hand for most faculty members (Gappa et al., 2007; Hult et al., 2005; Johnsrud & Rosser, 2002; Rosser, 2004). Salary, staffing, working conditions, and the resources available to accomplish one's work are all tangible commodities that affect how appreciated and supported faculty members feel at their institutions. Several resources identified as being of particular value include secretarial and office support, technical support, library services, availability of materials, teaching and graduate assistants, and support for both professional development and research activities (Johnsrud & Des Jarlais, 1994; Olsen, 1992; Wimsatt, 2002). Sources of support can vary dramatically by college, department, and even by individual faculty member, and such perceived inequities can be demoralizing (Kerlin & Dunlap, 1993).

In addition to valuing equitable access to the resources necessary to do good work, faculty members need to feel respected by those with whom they work (Gappa et al., 2007). Research indicates that positive interactions with and support from the institution's administration is related to faculty satisfaction (Hult et al., 2005; Iacqua, Schumacher, & Li, 1995). In addition, support from the chair and "humane treatment by the dean" (Donohue, 1986) positively influence work satisfaction (Olsen, Maple, and Stage, 1995). Research outside the realm of higher education also supports the pivotal role that respect plays in work satisfaction (Alderfer, 1972; Campbell & Koblenz, 1997; Herzberg, 1966; Maslow, 1970).

Issues of adequate support and respect for individual faculty members take on more importance as the tasks related to conducting funded research continue to grow broader and often more cumbersome. Faculty research involves a variety of related activities, including planning and performing studies and experiments, analyzing data, developing new models and theories, advising and supervising students at all academic levels as they conduct research, and collaborating with research colleagues. Research activities also include disseminating results to the public by writing journal articles and conference papers, presenting at conferences and technical meetings, and giving seminars.

In addition to these direct research activities, faculty researchers also undertake indirect activities that enable and support their research projects (e.g., managing personnel, purchasing equipment and laboratory supplies, complying with institutional rules and state and federal laws that govern research). Further, faculty collectively commit substantial effort to research-related service activities such as organizing professional meetings, peer-review of research articles and grant proposals, and service on compliance committees and panels. Such activities put faculty members in sustained touch with new research and with the best work that is being done both in and beyond their disciplines (Teagle Foundation, 2007). They also commit to tasks intended to guarantee effective use and stewardship of sponsor funding, such as writing periodic scientific progress reports, providing financial reports, and certifying the effort of research personnel.

These indirect research activities comprise an additional set of burdens that may reduce the time available to conduct research. Rutherford and Langley (2007) note that a major challenge facing research administrators is to ensure that institutional missions remain focused on relieving the academic community of administrative burdens despite distractions created by “the day-to-day development of system requirements and specifications” (p. 92). Previously, Rose (1991) encouraged research administrators to base programmatic decision-making on the specific “needs and desires” of researchers and not to lose sight of the need to facilitate the research process (p. 26).

The Faculty/Research Administrator Relationship

Developing and maintaining effective partnerships between faculty and research administrators is a critical issue if both are to be in a position to do their best work. Colleges and universities may initially appear as havens of consensus to those on the outside, but cooperative relationships between faculty and administrators are sometimes difficult to achieve (Welsh & Metcalf, 2003). Academic and administrative cultures are two separate and, in many respects, competing domains (Birnbaum, 1988; Morphey, 1999; Rice, Sorcinelli, & Austin, 2000) with different implicit models of the shared work environment (Del Favero, 2005; Peterson & White, 1992). An international survey of the academic profession conducted between 1991 and 1993 confirmed significant (and nearly universal) alienation of faculty from administrators in 14 countries (Altbach & Lewis, 1995). Less than half of the faculty felt informed about what was happening on their campuses, and close to half characterized communication with administrators as poor. Very few faculty members expressed an interest in taking on more administrative responsibilities.

“Faculty feel accountable to a body of knowledge, to a tradition of inquiry, and to accepted methods of investigation and instruction. In the minds of faculty, these obligations are different

than those that other enterprises exact from their staffs” (Pew Higher Education Research Group, 1996, p. 6). Faculty value scholarship while administrators value practical matters such as organizational efficiency and accountability (Blackburn & Lawrence, 1995). Scholars tend to be autonomous and individualistic in their work. In contrast, administrators are perceived as having a focus on bureaucratically defined institutional needs. As such, they frequently take the needs of the collective into account when engaged in decision-making. Administrators are more likely to interact with external stakeholders, which also makes them more receptive to external aspirations for higher education (Schilling & Schilling, 1998). Tension between administrators and faculty is inherent in these differences. The challenge is for those involved to explore ways to break down these defined prejudices and seek to ensure that both researchers and their administrators work in partnership. Research administration should involve more than clerical functions and institutions should encourage such professionalization whenever possible (Langley, 2007).

In the past, research administrators were responsible for searching for funding sources, requesting guidelines, preparing budgets, and sending out proposals. Now, however, the administrator’s role has expanded to include interpreting, creating and implementing policy (Vargas & Hanlon, 2007). Administrators are also called upon to develop strategic alliances and manage risk as it relates to research compliance (Langley & Oforu, 2007). Research administrators need to recognize the importance of helping faculty understand why change is taking place in order to improve receptiveness (Rutherford & Langley, 2007).

Research administrators and faculty must adapt and work together to bridge academic and administrative cultures if both are to be served effectively. Disconnection and division must be avoided because they weaken the ability of faculty and administrators to work toward a collective purpose and increase the likelihood of creating a culture of resistance among faculty (Koslowski, 2007; Pew Higher Education Research Group, 1996). Expectations for institutional effectiveness activities are often presented by administrators as common sense appeals for improvement and accountability, yet can be perceived by faculty as attacks on tenure and academic freedom, or as selling out to business ideologies and governmental bureaucracies (Ryan, 1993).

Faculty Research Burden

During the fall of 2005, the Faculty Standing Committee of the Federal Demonstration Partnership (FDP) teamed with FDP member institutions to undertake a study of the sources and extent of administrative burden among faculty managing federal research grants. Measures of burden were collected from faculty employed at the traditionally busiest federal research institutions. Prior to this, few large-scale studies had been conducted to investigate the federal research grant administration process from the perspective of faculty. The FDP funded this baseline study of burden to develop recommendations to the federal government for maximizing the time spent by faculty on active research while maintaining regulatory accountability and compliance.

Methodology

The *2005 FDP Faculty Workload Study* randomly sampled 23,325 research faculty at member institutions to explore the extent to which they experienced burden associated with the

administration of their federally funded grant research (Decker, Wimsatt, Trice, & Konstan, 2007). The aim of the study was to help institutions and federal agencies develop new strategies for making federally funded research more efficient and productive without sacrificing accountability and compliance with federal regulations. Key findings from the study are highlighted below.

The FDP questionnaire was based on an extensive review of the literature on faculty research productivity and funded project involvement, as well as collective input from the FDP Faculty Standing Committee. Wherever possible, items were included from faculty surveys previously conducted by other federal agencies and research organizations (e.g., NCES 2002; HERI 2003). The questionnaire consisted of 20 items and several sub-items. It was designed in an online format that allowed for both forced choice and written responses.

The Internet-based survey instrument was piloted by 72 FDP faculty researchers employed at 13 FDP-member institutions. Included in the online pilot survey were a series of pre- and post-award administrative tasks. Information from the pilot study informed the revision of the survey instrument and administration of the full study, which was hosted by the Survey Sciences Group of Ann Arbor, Michigan. Invitation to participate in the full study was limited to a random sample of full-time faculty members who held federally funded research grants during the 2004-05 academic year and were employed as assistant, associate, or full professors at FDP member institutions. The survey instrument was sent to the institutions in October 2005 and responses were returned by mid-December. The survey was self-administered and self-paced.

A total of 6,081 faculty employed at 69 of 99 FDP member institutions responded to the survey, representing response rates of 37.4% for faculty and 69.6% for institutions. The item completion rate was 87.1%. Statistical analyses were completed during the spring of 2006. An SPSS statistical software program was used to code and analyze the data, distributions were produced, and chi-square and analyses of variance were used to compare responses. Significance levels of $p < .001$ were highlighted in the final report (Decker et al., 2007).

While the response rate limited the ability to generalize the results beyond the FDP respondent group, the study has provided first-of-a-kind feedback from faculty at the nation's leading research universities. The resulting dataset contained measures of administrative burden, individual and institutional characteristics, workload, time allocations, and perceptions of work climate. The results of the final study mirrored the initial pilot study in several respects, with seven of the top burdens identified in the pilot emerging as significant burdens in the full study. Detailed questions about grant proposal writing were removed from the final study because such tasks are not eligible for federal research grant support. However, this task was recognized as a major burden by faculty involved in the initial pilot and was also identified as a major drain on faculty research time in the final study.

Results

Due to the criteria for sample selection, the FDP respondent group consisted of more research-oriented and senior-level faculty members than many previous studies of instructional faculty worklife conducted at the national level by the U.S. Department of Education. Hard sciences

(e.g., biological/life sciences, health sciences, physical sciences) and engineering faculty employed at institutions with more than \$200 million in federal-grant funding dominated this response group, with faculty reporting an average of \$434,753 in total direct-cost funding (median \$213,000). Many worked at institutions associated with medical schools. Almost half held active grants funded by the National Institutes of Health and approximately one-third by the National Science Foundation. A slight majority (54%) were professors, 24% associate professors, and 22% assistant professors. Sixty-seven percent of the respondents were tenured, 68% were male, and 77% were White, Non-Hispanic.

Results of the FDP study suggest that faculty are spending large amounts of time on administrative duties related to federal grant management that they could otherwise be devoting to active research. The findings further suggest that faculty burden is cumulative, and that the sheer volume of burdensome tasks is growing past the point of reasonable management by many researchers.

FDP study respondents reported that about 38% of their work weeks went toward federally funded grant projects. Of the time committed to federal research, 42% was devoted to pre- and post-award administrative activities – not to active research. The time devoted to administrative tasks was divided almost equally between pre-award (writing/submitting proposals and budgets, applying for approvals, developing protocols, drafting safety/security plans) and post-award tasks (purchasing supplies/equipment, supervising budgets, managing personnel, complying with regulations, monitoring safety/security plans, writing reports).

Six of the twenty-four administrative tasks related to federal grant management took away “a moderate amount” to “a great deal” of research time. From a list of specific administrative tasks, faculty respondents identified the following as the most time consuming (in rank order): (1) grant progress report submissions; (2) personnel hiring; (3) project revenue management; (4) equipment and supply purchases; (5) IRB protocols and training; (6) training personnel and students; and (7) personnel evaluations. However, faculty reporting the greatest level of burden (i.e., those who experienced at least some level of burden from each administrative task) felt that a broader group of burdens took considerable time away from their active research: (1) IRB protocols and training; (2) IACUC protocols and training; (3) training personnel and students; (4) grant report submissions; (5) IRB compliance issues; (6) IACUC compliance issues; (7) personnel hiring; (8) project revenue management; (9) HIPAA compliance; (10) subcontracting and collaborations; (11) safety planning and monitoring; and (12) equipment and supply purchases.

When examined by institutional characteristics (e.g., Carnegie classification, public/private affiliation, federal funding level), there was no substantial variation in the time faculty spent on pre-award tasks, but faculty at private institutions reported spending less time than those at public institutions on post-award responsibilities. Financial responsibilities created significantly more burden for faculty at public institutions than for those at private institutions, particularly payroll issues, budget transfers, cost accounting, cost-sharing agreements, project revenue management, spending authority oversight, and subcontracting and collaboration. Those at private institutions reported greater burden linked to conflict of interest, laboratory safety

and inventory, and animal and human subjects use (IACUC, IRB, HIPAA), perhaps due to differences in institutional policies and procedures for ensuring compliance.

Although the differences were not always large, burden among underrepresented minority and Asian/Pacific Islander faculty exceeded burden experienced by White, Non-Hispanic faculty across more than two-thirds of the measures. Women also reported significantly higher levels of burden than men on more than half of the administrative tasks and they spent significantly less time on active research.

Most faculty reported receiving “very little” or “some” assistance with all 24 administrative tasks included in the FDP survey. They reported the most assistance with financial tasks, such as payroll issues, budget transfers, cost accounting, cost-sharing agreements, project revenue management, spending authority oversight, and subcontracting and collaboration.

Ninety-five percent of respondents reported that they could devote more time to active research if they had greater support with administrative tasks. In addition, 95% reported that at least some of the time they spent managing federal grants could be conducted by administrative personnel, and 76% were willing to reallocate direct costs to provide for research-required administrative support. On average, faculty believed that approximately 28% of their grants-management time could be handled by administrative personnel. Women estimated that they would recover a significantly greater number of research hours than did men if allowed additional support. Women also indicated a willingness to allocate a significantly greater percentage of direct costs to such an effort than men if given the opportunity. These gender differences remained significant after controlling for academic rank.

Just over 200 faculty provided additional comments regarding the need to improve support for grant proposal development and award processes. Faculty expressed frustration at the time that it takes to prepare and submit grant proposals, especially given current limitations on funding availability.

Likewise, 140 faculty contributed comments about their reactions to burden created by IRB, HIPAA, and IACUC compliance:

“I will never do another study involving human subjects again, and I am someone who helps administer IRB policies on my campus.”

“The total impact of the regulatory burden, e.g., IRB, HIPAA, and conflict of interest, are several orders of magnitude greater than when I began clinical research in 1981. These changes over the past 25 years have reduced by ~50%, the amount of research that gets done. The inefficiency is a major factor in my decision to discontinue clinical research next year (2006) and focus on health services research.”

“The major time issues involve approvals and paperwork required by on campus offices (such as IACUC) that cannot be dealt with by an administrator. I spend a large amount of my time responding to their requests ‘for clarification’ and ensuring that my paperwork actually makes it through their bureaucracy.”

Almost 90 faculty raised issues about the relationship between indirect cost recovery allocations and their need for assistance:

“ . . . [V]ery little money trickles down from indirect costs to pay for secretarial and administrative costs for individual scientists.”

“In the face of NIH cutbacks, I am facing my division shifting more grant administrative tasks back to me. I am strongly committed to continuing my research but am very concerned that I am not receiving enough return on my indirects to support the administration of my grants.”

“ . . . [W]ithout an increase in funds (either direct or indirect), the problem of eroding the time spent in research will not be solved. One potential solution, given the restraints in funding, is to designate a portion of the indirect costs specifically for support of the administrative needs of individual investigators and require institutions to document that those funds are going to support individual investigators (as opposed to getting swallowed up by general university ‘overhead,’ which is so far over the heads of faculty that it is of no direct benefit).”

Additional comments focused on the role of institutional regulations in creating burden:

“Our institution places a great deal of regulatory burden on investigators that is NOT required by the federal government. The modular budget for NIH grants, for example, is an excellent policy but doesn’t help us here because our University requires detailed budgets.”

“The university paperwork is overwhelming and the greatest deterrent to time on research.”

“University concern about federal auditing requirements has increased our work load noticeably in the past few years.”

Another set of statements referred to the issue of lost productivity:

“I calculate that I waste 35-40 percent of my time doing work that could be done by others. Ultimately this slows down my current research and potential research productivity.”

“As it is, most investigators use their lab techs to perform many administrative duties; as much as 50 percent of a lab tech’s time is spent in this fashion for a given grant. This is time taken away from productive research.”

The following comments reflected variation in the types and quality of assistance available to faculty across campuses:

“I am fortunate enough to have a technician paid for by the college. This relieves me from many of the burdens noted — such as safety plans, safety training, reporting, ordering, etc. I could not survive without this support.”

“I believe that my institution and department provide much of the services that I need to

administer grants — the problem is that the quality is not that good.”

“I actually take more issue with the existing institutional ‘support’ for administrative tasks. It is often not support at all and is often inefficient as well as ineffective. Written policies that are not comprehensible, that change frequently without notice, and the impossibility of obtaining consistent responses to questions necessitating multiple submissions of the same documents for approval, etc., waste a good deal more of my time than the actual requirements imposed by federal funding sources.”

“There does not seem to be a system of best practices for central grant administration, which could help substantially. The people involved could benefit from better training. They could also significantly benefit from automation. They are far too dependent on tedious manual vs. computer-based processes. Manually signed forms are required — digital signatures are not used, as they have been for many years in industry.”

“. . . [A]s the fed demands have gone up, the university has not provided any help.”

A few respondents raised the issue of burden created by conducting international research and hiring international students. Others expressed concern about technology support and funding required to manage research projects, particularly issues related to regular computer maintenance, acquisition of software licenses and upgrades, extending networking capabilities, and creating backup protections.

Overall, the findings suggest that the stress of working in a research environment enveloped by declining federal support for research and increasing demand for compliance appears to be taking its toll on our nation’s top researchers. By combining findings from the literature on faculty worklife and the FDP study, the following discussion will explore steps that can be taken by research administrators to facilitate more effective use of academic research time.

Discussion

The results of the studies presented in this article, when considered in the aggregate, shed light on the sources and extent of administrative burden experienced by faculty engaged in federal grant research. A number of clear messages are conveyed by these findings.

First, it is evident that faculty are spending substantial amounts of time on administrative duties related to grant management, and subsequently less time than they want to spend on active research. Grant proposal writing and the cumulative burden of administrative tasks consume much of this time. This finding highlights the need to create new types of organizational support structures that expedite the completion of academic research tasks. One approach could involve the provision of funds to underwrite faculty release time and/or reduced workloads for faculty involved in sponsored research projects.

However, a major problem with the administrative compliance and burden issue is not simply the time involved, but what this pressure does to erode faculty motivation and creativity. If left unchecked, such pressures can have a negative impact on the research enterprise by driving the best faculty and students away from scientific careers. Time spent conducting research also ties

into article publication rates, which has implications for the career advancement of emerging researchers (Chen, Gupta, & Hoshower, 2006). Goldberg and Lyons have warned that “academic research is often encumbered by the secondary or tertiary influence of regulations and policies intended to do something else” (1990, p. 3). The challenge facing research administrators is how to reduce this burden and provide support while ensuring compliance.

The FDP findings parallel those of a study involving 32 senior faculty employed by several major research universities, all of whom received at least \$1 million in federal research funding (Cole, 2007). In that study, reduction in the time researchers spend with administrative paperwork was rated a top priority, as was the reduction in bottlenecks linked to financial accounting, the reporting of grant funds, and timelier purchasing. Recent interviews involving the heads of eight university research groups in Germany suggest that the issue of burden is not unique to the United States. In that study, burden resulting from administrative tasks was identified as a key inhibitor of research efficiency and knowledge creation (Wang, Peters, & Guan, 2006).

Some institutional approaches to ensuring compliance are seen by faculty as more burdensome than others, and these perceptions vary depending upon the institutional contexts in which they work. Administrators should consider how a review of best practices might inform their construction of institutional regulations. For example, one approach might involve the study of peer institutions to compare IRB, HIPAA, and IACUC policies and procedures. Focus groups and interviews could also be conducted to gather information on which to base the reshaping of institutional guidelines, with input provided by a variety of campus stakeholders, including appropriate compliance administrators, department chairs, and principal investigators.

Indirect cost allocations are also of concern, given reports of hardship created by inconsistent policies for disbursement. In the FDP study, 89 faculty members made specific mention of the need to remedy the allocation of indirect cost returns, with a reasonable portion going toward faculty and department support of the associated research. Davis and O’Hanlon (1992) surveyed education deans working at 78 research universities and also found that indirect funds were handled quite differently within and across institutions. Some funds were returned to the generating departments or faculty members while others were used for purposes such as unit equipment purchases and travel. The study of 32 faculty conducted by Cole (2007) similarly identified the importance of supporting researchers by returning a significant yet reasonable portion of indirect costs to colleges, departments, and principal investigators.

Research burdens and administrative approaches to addressing them also vary considerably across institutions. According to the FDP faculty, some institutions are doing a better job than others in terms of reducing burden and providing support. In that study, a majority of respondents felt that they received the most assistance with financial tasks – which implies that support in this area is the most uniformly developed or established across FDP member institutions. Unfortunately, little is known about the situation at non-FDP member institutions with less research-intensive missions.

What additional support or services should research administrators provide to faculty? Although not a specific focus of the FDP study, faculty reported grant writing as the most burdensome task among those who participated in the pilot survey, and faculty in the final study provided over

200 unsolicited comments about proposal development and processing on their returned surveys -- which included no items about proposal writing. This parallels earlier findings identified by Boyer and Cockriel (1998) in their study of funded project development, wherein lack of training and knowledge in grant proposal development were identified as barriers to faculty involvement. Their research involving 248 tenured and non-tenured faculty revealed that barriers to grant seeking and writing varied in importance based on the length and type of appointment held by faculty.

To address this need, research administrators may want to consider traditional approaches to training such as grant writing workshops, the distribution of resource information and newsletters, and the funding of off-campus workshops hosted by federal and state agencies (Mishler, 1989). However, faculty members today have limited amounts of discretionary time to devote to professional development sessions. As a result, it is critical that those involved with research administration restructure the delivery systems used to transmit this kind of information, and to thoroughly evaluate the effectiveness and efficiencies of new approaches as well as incentives and disincentives for faculty involvement.

Faculty comments included in the FDP report indicate that heightened international activity among researchers may call for the development of a more global research management function. In response, research offices may want to explore the utility of partnering with other entities on campus to assist with paperwork linked to international research projects and the hiring of international students. Enabling technologies that facilitate collaboration are also becoming essential to the research enterprise, thereby increasing the need for regular computer maintenance, acquisition of software licenses and upgrades, extension of networking capabilities, and creation of backup protections.

Results of the FDP study suggest that experience of burden and levels of assistance vary by race, ethnicity and gender. The FDP report states that although the differences were not always large, women reported significantly higher levels of burden than men on more than half of the administrative tasks and that women spent significantly less time on active research. They also reported significantly less administrative assistance than males on a number of different tasks. Burden among underrepresented minority and Asian/Pacific Islander faculty exceeded burden experienced by White, Non-Hispanic faculty across more than two-thirds of the FDP measures.

Gender differences with regard to institutional support have been documented in previous studies of faculty (Hopkins, 1999; Monahan, 1993). When compared to Caucasian faculty, those underrepresented in the academy and within specific fields of research are also known to experience higher levels of stress related to conducting research and publishing (Hendel & Horn, 2005). Allowing adequate indirect funding to cover administrative support may, therefore, have important implications for women and underrepresented faculty seeking to more efficiently and effectively manage their research programs. The availability of research mentors and personalized training opportunities would also seem to be of critical importance. Such initiatives can be designed to work in tandem with other campus programs to encourage the recruitment and retention of female and underrepresented minority researchers.

With regard to support, the majority of FDP researchers perceived that they received relatively

little assistance with burdensome tasks. These findings parallel those of previous studies in which faculty reported receiving research assistance on a relatively infrequent basis (Monahan, 1993; Onyefulu & Ogunrinade, 2005). The results pose a variety of interesting questions, such as:

1. Was support provided but the FDP faculty respondents failed to appreciate the extent to which it was handled “behind the scenes?”
2. Was support provided but not the right type of support, or at a sufficient level?
3. Was support provided but rated poorly by the FDP faculty? If so, was this due to a general discontent with campus administrators, or did the institutional climate for research seemed overly compliance-oriented rather than service-focused?
4. Was support available but they did not know the extent of it?
5. Was support available but faculty in the FDP study did not go out of their way to use it?
6. Was support not available?

These questions highlight the importance of cultivating solid working relationships and open communication between faculty researchers and administrators. Faculty members need to have some way of knowing about the scope and content of tasks undertaken by their campus research offices. Lack of knowledge about such processes inevitably leads to lack of appreciation for the services provided. Rutherford and Langley (2007) stress the importance of keeping the campus community informed about any changes that have been implemented, recognizing that change and its impact on the morale of both faculty and research administrators should not be underestimated.

Past research indicates that faculty value (and now require assistance with) grant proposal and budget preparation as well as access to streamlined procedures for timely proposal review, mentoring and critiquing support, and a climate for research administration that conveys a sense of service as its central purpose (Cole, 2007). Faculty members value equitable access to the resources necessary to do good work, and they also have a need to feel respected by those with whom they work (Gappa et al., 2007). Vargas and Hanlon (2007) recommend gaining trust by ensuring that faculty members’ basic needs are met and building relationships by showing genuine interest in their research. Because scholars tend to value efficiency and accountability to a lesser degree than administrators (Blackburn & Lawrence, 1995), building cooperative relationships between the two groups can sometimes be difficult (Altbach & Lewis, 1995; Welsh & Metcalf, 2003). In order to bridge any faculty-administrator “disconnects” that may exist, research administrators should try to communicate in a way that lets faculty know that they are supporting work toward a common goal. Communication is a two way process, however, and faculty invariably need to improve outreach and nurture relationships across the administrative functions of their institution. It is not uncommon for research administrators to operate in a ‘blame culture,’ which serves no one. Ross (1990) has noted that “the relationship between research administrators and research scientists is a key variable in determining the success of an organization’s research endeavor” (p. 5).

Institutional leaders may want to explore whether existing methods of campus communication fit the needs of their faculty. Researchers require timely access to information about the types of support services offered on campus, and this information should be presented using formats, venues, and language that are easily accessed and understood by non-administrators. Focus group discussions and interviews with faculty researchers could be used to gather innovative suggestions. Academic deans and department chairs could assist with internal dissemination of research office information. Information about resources and services could be provided at new faculty orientation as suggested by Mishler (1989).

If faculty are aware of existing support services on their campuses, to what extent are they taking advantage of this assistance? Is the right type of assistance provided, and at appropriate levels? Past research suggests that faculty overwhelmed with administrative duties may not have time to seek research support (Davis & O'Hanlon, 1992; Onyefulu & Ogunrinade, 2005). Further, Davis and O'Hanlon advise research administrators to be careful about their assumptions and not to assume that all university administrators and faculty members have even a basic awareness of services provided by the university grants office, or that all units have the same needs for services. They encourage research administrators to be proactive in serving all units of the university and to reach out to faculty to provide assistance.

For faculty involved in the FDP study, the possibility exists that time constraints and/or language barriers inhibited their use of research office services. Lack of geographic proximity to research services or other institutional barriers might have played a role as well. In such instances, access to online assistance via videoconferencing, or the availability of consistent on-site assistance in faculty offices and laboratories might provide better service delivery.

It is important to remember that the field of research administration is evolving. Emphasis should be placed on the development of skills and professionalization of research administrators given the importance of their involvement in the overall research enterprise. Administrative leaders should consider what balance of talents work best at each institution. Given past research and the types of feedback provided in the FDP study, it may be important for staff to better understand each other's motivations and work preferences. This could be addressed through a variety of approaches ranging from the redesign of staff hiring criteria and programs of continuing professional development to the creation of innovative training workshops for both faculty and research administrators.

The role of research administrators is also changing. While early service consisted of supporting faculty by searching for funding sources, requesting guidelines, preparing budgets, and mailing proposals so that researchers could focus on writing proposals and conducting funded activities, it now involves interpreting, creating and implementing policy (Vargas & Hanlon, 2007). The function of a research administrator is to help expedite the process of research and assist research investigators in accomplishing their work (Roberts & House, 2006). Although the responsibilities of research administrators are moving in new directions, the need to provide service to faculty remains a critical element of our work.

Conclusion

A major aim of the recent FDP study was to help institutions and federal agencies develop new strategies for making federally funded research more efficient and productive without sacrificing accountability and compliance with federal regulations. Because thoughtfully considered recommendations do not necessarily lead to significant improvement in the administration of academic research (Stanley & Sellers, 1991), reaction to these and earlier findings should not be left to coincidental occurrence. Rather, research administrators are encouraged to “. . . help relieve our faculty of administrative burdens as best we can, and do as much as possible with the resources we have” so that academic researchers can devote “their time and minds to solving the critical challenges of our age” (Killoren, 2008, p. 5).

Regardless of the solutions pursued, successful research management will forever rely upon effective partnering between faculty and administrators. Although the specific roles and responsibilities of research administrators may change over time, the challenge remains – how to customize ongoing development and skills training for the profession in a way that supports the individual needs of faculty researchers on each campus? The findings presented in this article suggest several implications for administrative practice, most of which do not necessarily require complex or expensive remedies.

References

- Alderfer, C. (1972). *Existence, relatedness, and growth*. New York: Free Press.
- Altbach, P.G., & Lewis, L.S. (1995). Professional attitudes – An international survey. *Change*, 27(6), 50-57.
- Bayer, A.E. (1973). *Teaching faculty in academe: 1972-1973*. Washington, D.C.: ACE.
- Bentley, R., & Blackburn, R.T. (1990). Changes in academic research performance over time: A study of institutional accumulative advantage. *Research in Higher Education*, 31, 327-344.
- Birnbaum, R. (1988). *How colleges work*. San Francisco: Jossey-Bass.
- Blackburn, R.T. & Lawrence, J.H. (1995). *Faculty at work: Motivation, expectation, satisfaction*. Baltimore, MD: The Johns Hopkins University Press.
- Boyer, P.G., & Cockriel, I. (1998). Factors influencing grant writing perceptions of tenured and nontenured faculty. *SRA Journal*, 32, spring, 61-68.
- Campbell, A., & Koblenz, M. (1997). *The work and life pyramid of needs*. Deerfield, IL: Baxter Healthcare Corporation & MK Consultants.

- Cataldi, E.F., Bradburn, E.M., & Fahimi, M. (2005). *2004 National study of postsecondary faculty (NSOPF:04): Background characteristics, work activities, and compensation of instructional faculty and staff: Fall 2003* (NCES 2006-176). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved June 29, 2008, from <http://nces.ed.gov/pubsearch>
- Chen, Y., Gupta, A., & Hoshower, L. (2006). Factors that motivate business faculty to conduct research: An expectancy theory analysis. *Journal of Education for Business*, 81(4), 179-189.
- Cole, S.S. (2007). Research administration as a living system. *Journal of Research Administration*, 38(1), 139-152.
- Conley, V.M. (2002). *Part-time instructional faculty and staff: Who they are, what they do, and what they think: Supplemental Table Update* (NCES 2002-163u). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Davis, S.K., & O'Hanlon, J.I. (1992). A survey of grant and contract activity in colleges of education. *Research Management Review*, 6(1), 25-41.
- Decker, R.S., Wimsatt, L., Trice, A.G., & Constan, J.A. (2007, January). *A profile of federal-grant administrative burden among Federal Demonstration Partnership faculty. A report of the Faculty Standing Committee of the Federal Demonstration Partnership*. Washington, D.C.: National Academy of Sciences.
- Del Favero, M. (2005). The social dimension of academic discipline as a discriminator of academic deans' administrative behaviors. *Review of Higher Education*, 29(1), 69-96.
- Dey, E.L., Milem, J.F., & Berger, J.B. (1997). Changing patterns of publication productivity: Accumulative advantage or institutional isomorphism? *Sociology of Education*, 70(4), 308-323.
- Donohue, J.D. (1986). Faculty perceptions of organizational climate and expressed job satisfaction in selected baccalaureate schools of nursing. *Journal of Professional Nursing*, 2(6), 373-379.
- Gappa, J.M., Austin, A.E., & Trice, A.G. (2007). *Rethinking faculty work: Higher education's strategic imperative*. San Francisco: Jossey-Bass.
- Goldberg, M. & Lyons, D. J. (1990). Increased cost of university-based research. *Research Management Review*, 4(2), 1-8.
- Gumport, P. (1997). Public universities as academic workplaces. *Daedalus*, 126(4), 113-136.

- Hagedorn, L. S. (2000). *Gender differences in faculty productivity, satisfaction, and salary: What really separates us? Shaping a National Agenda for Women in Higher Education*. Conference Proceedings, University of Minnesota. ERIC Document 464 548.
- Hendel, D. D. & Horn, A. S. (2005, November). *Changes between 1989-90 and 2001-02 in the relationship between academic life conditions and perceived sources of faculty stress*. Paper presented at the annual meeting of the Association for the Study of Higher Education, Philadelphia, PA.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World Publishing.
- Hopkins, N. (1999, June 11). MIT and gender bias: Following up on victory. *The Chronicle of Higher Education*, 45(40), B4-B5.
- Hult, C., Callister, R., & Sullivan, K. (2005). Is there a global warming toward women in academia? *Liberal Education*, 91(3), 50-57.
- Iiacqua, J.A., Schumacher, P., & Li, H.C. (1995). Factors contributing to job satisfaction in higher education. *Education*, 116(1), 51-61.
- Johnsrud, L.K., & Des Jarlais, C.D. (1994). Barriers to the retention and tenure of women and minorities: The case of a university's faculty. *Review of Higher Education*, 17, 335-353.
- Johnsrud, L. K. & Rosser, V. J. (2002). Faculty members' morale and their intentions to leave: A multilevel explanation. *Journal of Higher Education*, 71(1), 34-59.
- Kerlin, S.P., & Dunlap, D.M. (1993). For richer, for poorer: Faculty morale in periods of austerity and retrenchment. *Journal of Higher Education*, 64, 348-377.
- Killoren, R. (2008). One eye towards the past, one eye towards the future. *NCURA newsletter*, 39(5), 4-5.
- Koslowski, F.A. (2007, February 13). Expectations, challenges, and frustrations: Faculty and administrator perceptions of quality and assessment. *Academic Leadership*, 1-14. Retrieved May 19, 2008 from http://www.academicleadership.org/empirical_research
- Langley, D. (2007). Research administration: A profession in development. *Engage*, 11(3), 13.
- Langley, D., & Ofosu, M.H. (2007). Celebrating a profession: The global perspective. *Journal of Research Administration*, 38(1), 39-43.
- Lindholm, J.A., Szelényi, K., Hurtado, S. & Korn, W.S. (2005). *The American college teacher: National norms for the 2004-2005 HERI faculty survey*. Los Angeles: HERI, UCLA.

- Maslow, A. (1970). *Motivation and personality*. New York: Harper and Row.
- Milem, J.F., Berger, J.B., & Dey, E.L. (2000). Faculty time allocation: A study of change over twenty years. *Journal of Higher Education*, 71(4), 454-475.
- Mishler, J.M. (1989). Organization and promotion of sponsored research at a mid-sized state university: A ten-year case history. *Research Management Review*, 3(1), 33-41.
- Monahan, T.C. (1993). Barriers and inducements to grant-related activity by New Jersey State College faculty. *SRA Journal*, 24(4), 9-25.
- Morphew, C.C. (1999). Challenges facing shared governance within the college. *New Directions for Higher Education*, 105(spring), 71-79.
- Olsen, D. (1992). Interviews with faculty: Why do they leave? In D.H. Wulff & J.D. Nyquist (Eds.), *To improve the academy: Resources for faculty, instructional, and organizational development*, 11, (pp. 35-47). Stillwater, OK: New Forums Press.
- Olsen, D., Maple, S.A., & Stage, F.K. (1995). Women and minority faculty job satisfaction: Professional interests, professional satisfactions, and institutional fit. *Journal of Higher Education*, 66(3), 267-293.
- Onyefulu, C.C., & Ogunrinade, A.F. (2005). Kick-starting research in newly emergent universities: Why faculty do not apply for research development 'seed' funding at the University of Technology, Jamaica. *Journal of Research Administration*, 36(2), 14-22.
- Peterson, M.W., & White, T.H. (1992). Faculty and administrator perceptions of their environments: Different views or different models of organization? *Research in Higher Education*, 33(2), 177-204.
- Pew Higher Education Research Group. (1996). Shared purposes. *Policy Perspectives*, 6(4), 1-8.
- Rice, E., Sorcinelli, M., & Austin, A.E. (2000). Heeding new voices: Academic careers for a new generation. *Working Paper Series, Inquiry No. 7*. Washington, D.C.: American Association for Higher Education, Forum on Faculty Roles and Rewards.
- Roberts, T.J., & House, J. (2006). Profile of a research administrator. *Research Management Review*, 15(1), 41-47.
- Rose, R. (1991). Research is the donut! *SRA Journal*, 23(3), 17-26.
- Ross, M. H. (1990). Opportunities for maximizing the effectiveness of the administrator/researcher relationship. *Journal of the Society of Research Administrators*, 22(1), 17-22.

- Rosser, S.V. (2004). *The science glass ceiling: Academic women scientists and the struggle to succeed*. New York: Routledge.
- Rutherford, S., & Langley, D. (2007). Implementation of systems to support the management of research: Commentary from a UK university perspective. *Journal of Research Administration*, 38(1), 85-95.
- Ryan, J.G. (1993). After accreditation: How to institutionalize outcomes-based assessment. *New Directions for Community Colleges*, 83(3), 75-81.
- Santos, J. L. (2007). Resource allocation in public research universities. *The Review of Higher Education*, 30(2), 125-144.
- Schilling, K.M. & Schilling, K.L. (1998). *Proclaiming and sustaining excellence: Assessment as a faculty role*. Washington, DC: ASHE-ERIC.
- Stanley, D.A., & Sellers, W. (1991). Making things better: A summary of past recommendations for improving the management of federally-sponsored academic research. *Research Management Review*, 5(1), 1-22.
- Teagle Foundation Working Group on the Teacher-Scholar. (2007, May). *Student learning and faculty research: Connecting teaching and scholarship*. New York: ACLS.
- U.S. Department of Education. (2004). *2004 National study of postsecondary faculty (NSOPF:04)*. Washington, D.C.: National Center for Education Statistics (NCES).
- Vargas, P.A., & Hanlon, J. (2007). Celebrating a profession: The servant leadership perspective. *Journal of Research Administration*, 38(1), 45-49.
- Wang, J., Peters, H.P., & Guan, J. (2006). Factors influencing knowledge productivity in German research groups: Lessons for developing countries. *Journal of Knowledge Management*, 10(4), 113-126.
- Welsh, J.F., & Metcalf, J. (2003). Faculty and administrative support for institutional effectiveness activities. *Journal of Higher Education*, 74(4), 445-468.
- Wimsatt, L.A. (2002). *A study of work-related satisfaction and turnover intentions of faculty in higher education*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.